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ABSTRACT

The study was designed to experimentally determine the rate of growth as it pertained to visual motor development of an experimental and a control group by using a resource teacher as the vehicle to administer the remediation. The study lasted for 7 months. Beery's Developmental Test of Visual-Motor Integration was administered in a pretest and posttest format to 93 first grade students. The experimental group experienced the Frostig Developmental remediation materials using either the first level of the eye or motor coordination materials. The experimental group met in groups of about 11 children for a period of 30 minutes twice weekly. Seven samples of remediation are included in the form of photographs. Comparison of pretest and posttest scores showed that the experimental group gained 3 months of visual motor growth above the control group. The growth was considered statistically significant. (CB)

A STUDY OF THE EFFECTIVENESS OF A NON-SPECIALIST IN REMEDIATING VISUAL-MOTOR SKILLS IN A TITLE I SCHOOL

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The purpose of this study was to experimentally determine the rate of growth as it relates to visual-motor development of an experimental group as compared to a control group using a resource teacher as the vehicle to administer the remediation. The study extended for a period of seven months.

Beery's Developmental Test of Visual-Motor Integration was administered to ninety three first grade students in October, 1971. A mean chronological age of 81.01 months was established of the entire group. This group consisted of thirty nine girls and fifty four boys. The children were separated into two groups, an experimental group and a control group using a VMI age equivalent score of one year - three months below the child's chronological age - as the guide to separate the two groups. This cutoff criterion was arbitrarily established to facilitate manageability, scheduling and to provide for individual attention. The mean chronological ages of the experimental and control groups were as follows in Figure 1.

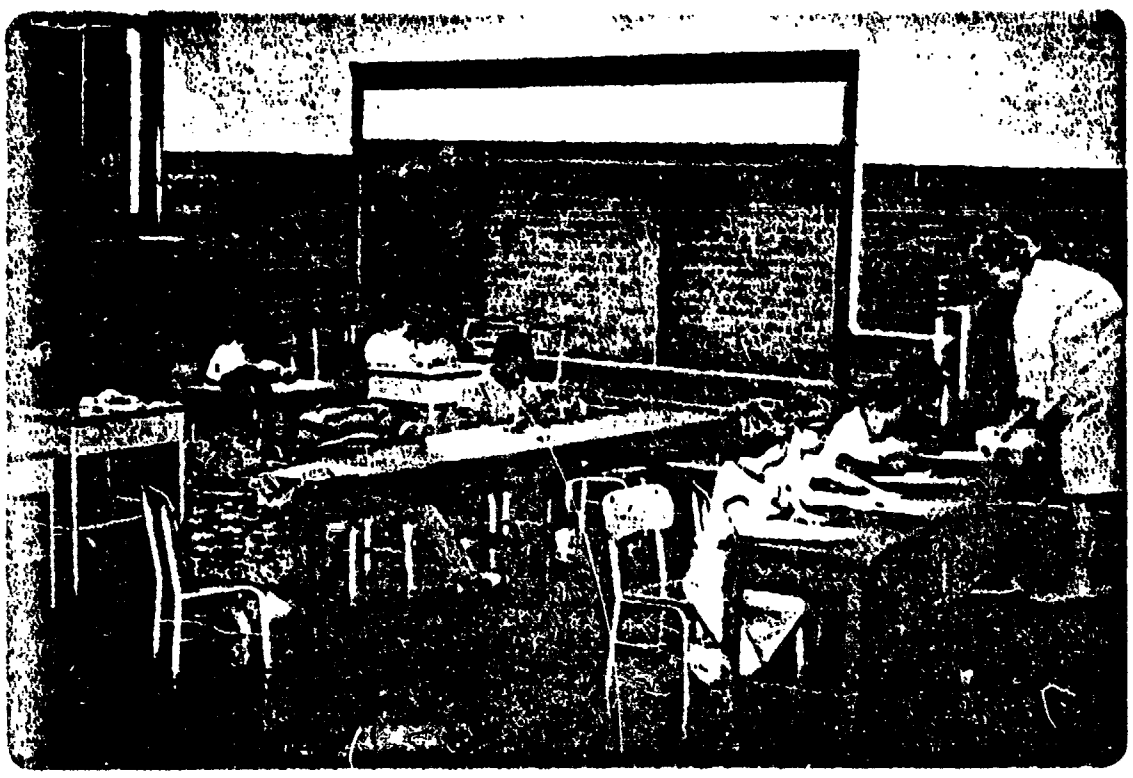
Figure 1

	Experimental		Control	
	N	Mean C.A.	N	Mean C.A.
Boys	25	80.64 Months	28	81.34 Months
Girls	18	79.37 Months	22	82.91 Months
Total	43		50	

The control group remained in their first grade rooms and experienced the regular first grade curriculum. The experimental group was removed to another room where they experienced the Frostig Developmental remediation materials using only the first level or the eye-motor coordination materials. The experimental group met in groups of ten to twelve for a period of thirty minutes twice a week with the Title I Resource Teacher. After the remediation

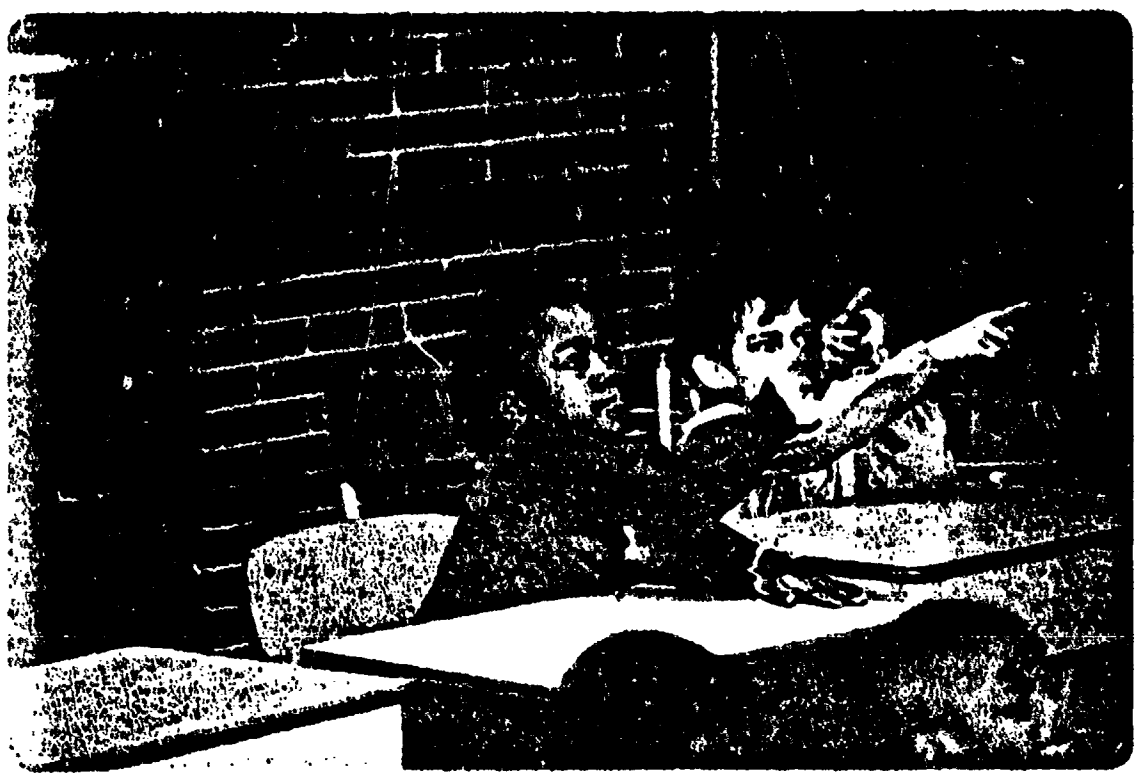
period, the children were returned to their regular classroom. The remediation also used tactile developmental materials, chalk board activities, directionality activities, the balance beam and hopping and skipping gross motor activities. Samples of the remediation were photographed and listed.

Figure 2



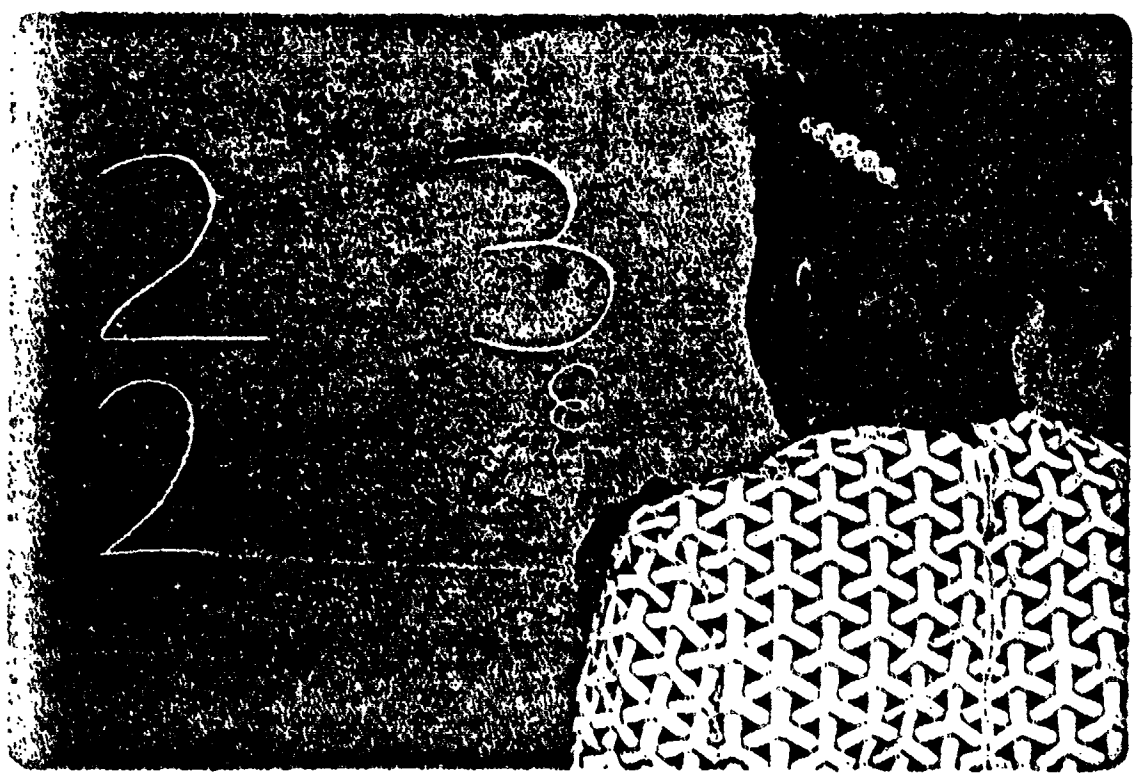
The remediation class size was limited to provide for individual attention.

Figure 3



Directionality was remediated using the dominant hand.

Figure 4

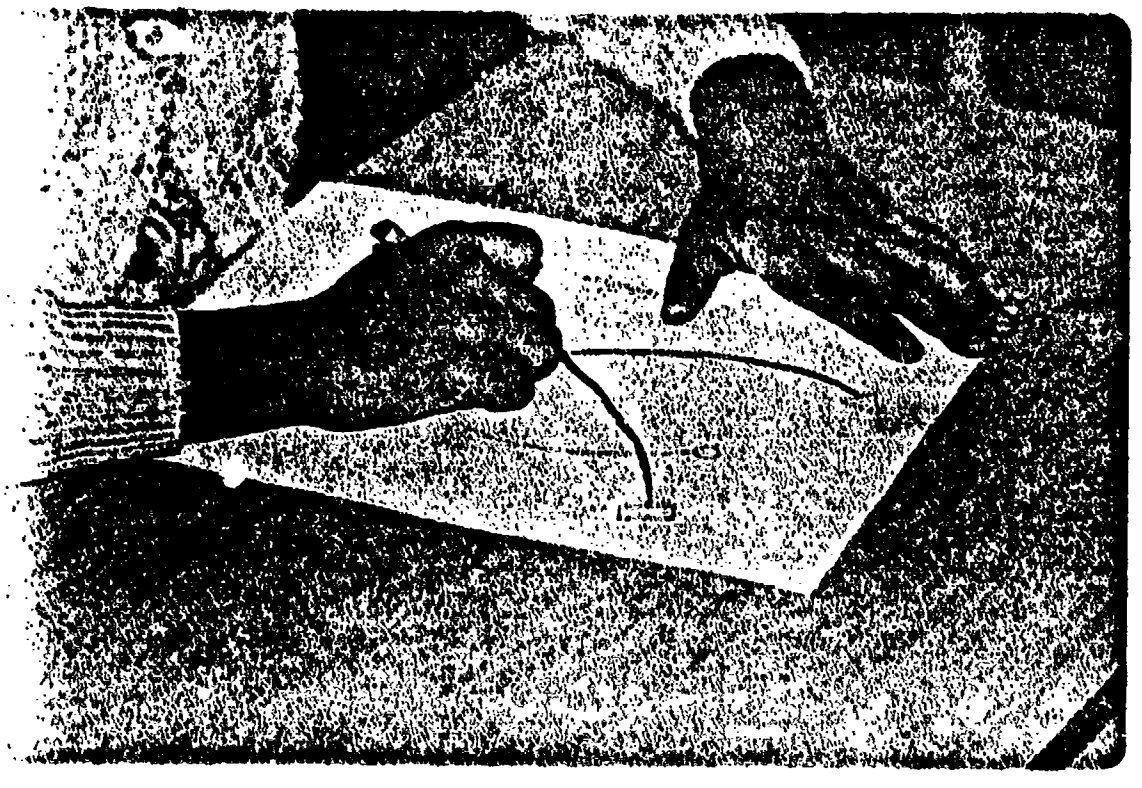


In addition to paper-pencil tasks, chalk board activities were employed to help remediate reversals and inversions.

Figure 5

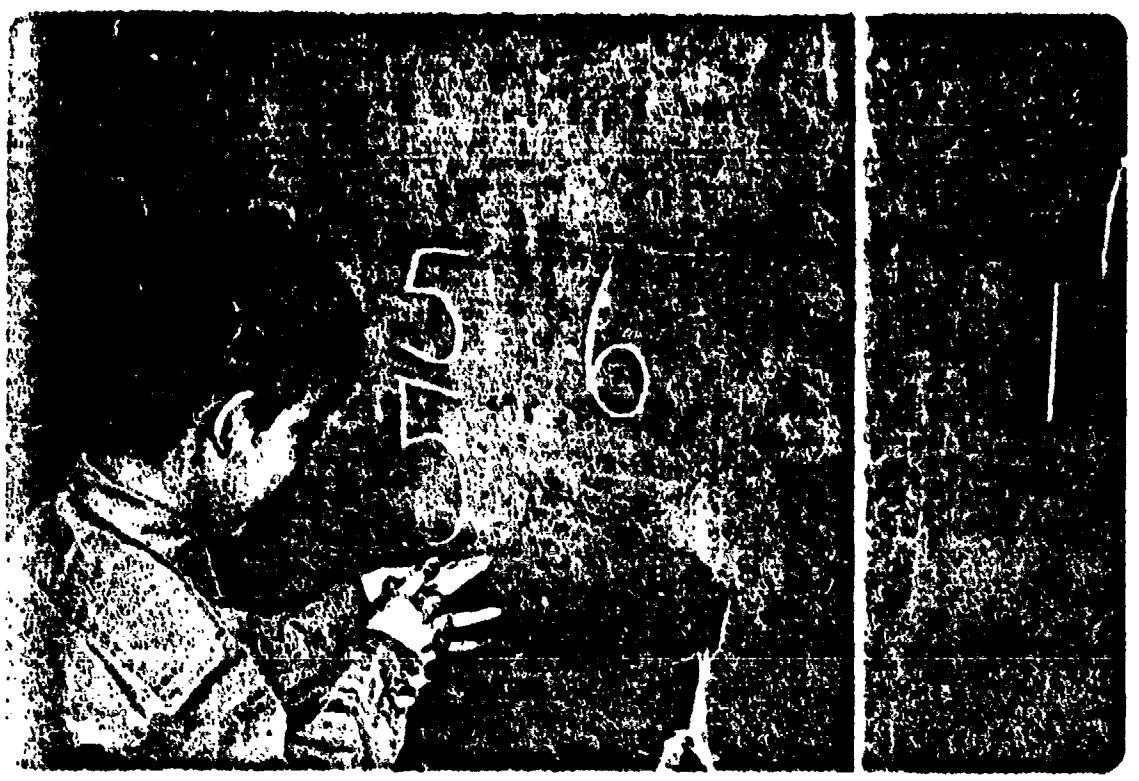
Tactile stimulus aided visual-motor development.

Figure 6



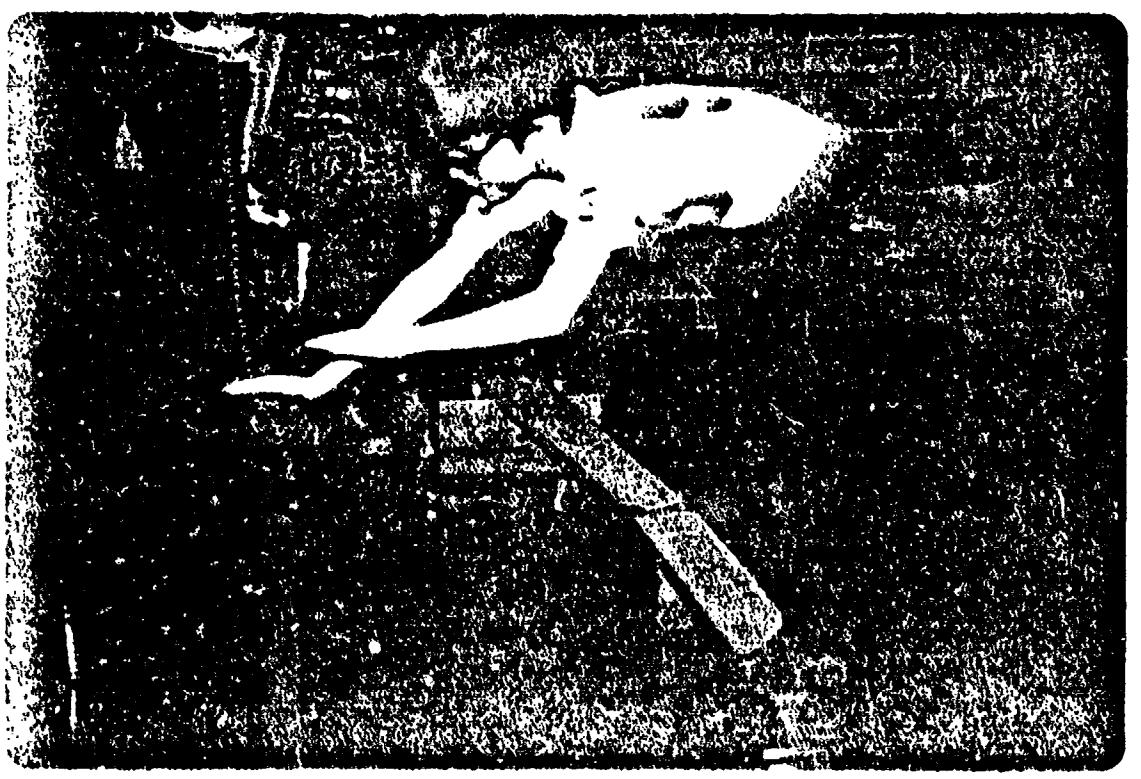
Crayons were used frequently with visual-motor activities.

Figure 7



Crossing the body mid-line required the use of both hands.

Figure 8



The balance beam was used by all those in the experimental group.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
5	8	3	7	4	3	1
3	14	11	10	1	12	1
1	4	8	1	9	1	1
6	10	11	1	5	1	3
3	7	1	9	3	1	1

Figure 2.9 - 6

Donald Trump

Figure 10

A girl six years six months of age was asked to copy a calendar in January and again in June. The improvement was noticeable in Figures 9 and 10.

The VMI was re-administered in May, 1971 to all the children who were evaluated in October, 1971 - a period of seven months. The post-evaluation was compared to the pre-evaluation to determine the visual-motor growth of those with remediation to those without remediation.

Figure 11

Mean gain reported in raw scores.

	Experimental			Control		
	VMI Oct.	VMI May	Gain	VMI Oct.	VMI May	Gain
Boys	8.08	12.25	4.17	11.61	13.18	2.57
Girls	8.22	11.28	3.06	10.73	12.62	1.89
		Group Mean	3.62		Group Mean	2.23

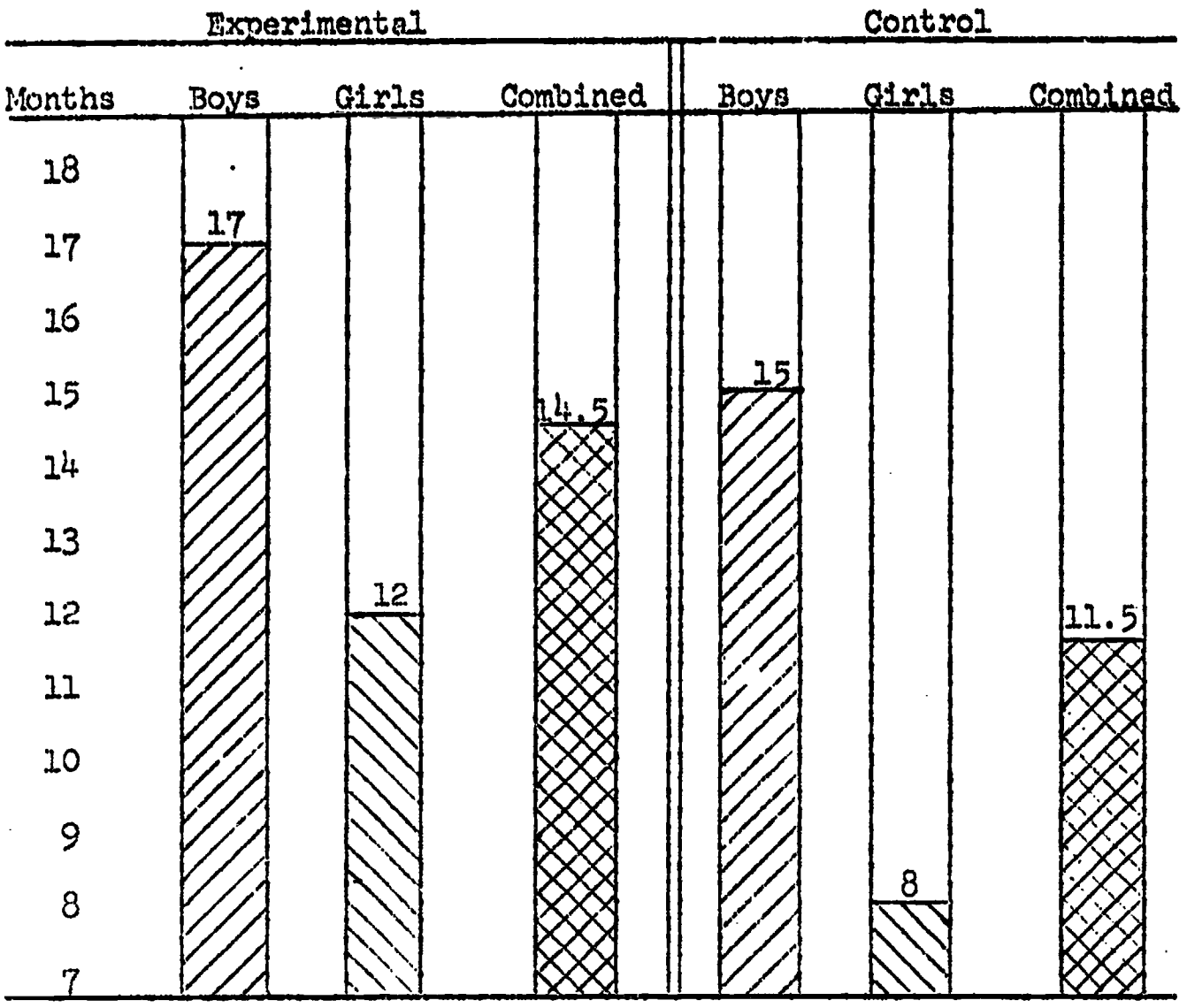
Figure 12

Mean gain reported in age equivalent scores expressed in months.

	Experimental			Control		
	VMI Oct.	VMI May	Gain	VMI Oct.	VMI May	Gain
Boys	62	79	17	69	84	15
Girls	60	72	12	69	77	8
		Mean Gain	14.5 Months		Mean Gain	11.5 Months

Figure 13

Gain of boys compared with girls reported in months.



The significance of the difference of Mean Gains of Paired Groups formula was used to determine the level of significance. The formula, as follows, indicated a greater than .01 level of significant gain according to Fisher and Koenker:

$$t = \frac{\text{(Mean Gain) (Experimental)} - \text{(Mean Gain) (Control)}}{\sqrt{\frac{N(\Sigma D^2) - (\Sigma D)^2}{N^2 (N-1)}}}$$

CONCLUSIONS

The experimental group gained three months of visual-motor growth above the control group. This amount of growth is significant statistically. The teachers reported that the total classroom seemed easy to manage since those children needing special attention were able to receive it. From clinical observations made during the seven months, it would appear that both the experimental and control groups did benefit from this study as both groups grew faster than the norms established by Beery. It would also appear that further study should be considered including non-Title I schools.